

WHAT IS CLAIMED IS :

1. A method for surface modification of oxide ceramics, comprising the steps of:
doping a glass component to a surface of oxide ceramics; and
5 carrying out heat treatment for the oxide ceramics and the glass component at
1000-1700°C for several seconds or several hours.
2. The method according to claim 1, wherein the glass has a thermal expansion
coefficient smaller than the oxide ceramics.
3. The method according to claim 1, wherein the glass consists of MgO, Al₂O₃
10 and SiO₂ as principal components.
4. The method according to claim 1, wherein the oxide ceramics is to be alumina
ceramics, and subject to heat treatment at a temperature of 1500°C for 5-300 minutes.
5. The method according to claim 2, wherein the oxide ceramics is to be alumina
ceramics, and subject to heat treatment at a temperature of 1500°C for 5-300 minutes.
- 15 6. The method according to claim 3, wherein the oxide ceramics is to be alumina
ceramics, and subject to heat treatment at a temperature of 1500°C for 5-300 minutes.
7. The method according to claim 1, wherein the oxide ceramics is to be zirconia
ceramics, and subject to heat treatment at a temperature of 1450°C for 5-300 minutes.
8. The method according to claim 2, wherein the oxide ceramics is to be zirconia
20 ceramics, and subject to heat treatment at a temperature of 1450°C for 5-300 minutes.
9. The method according to claim 3, wherein the oxide ceramics is to be zirconia
ceramics, and subject to heat treatment at a temperature of 1450°C for 5-300 minutes.

10. Oxide ceramics of which surface is modified according to a method as claimed in claim 1.

11. Oxide ceramics of which surface is modified according to a method as claimed in
5 claim 2.

12. Oxide ceramics of which surface is modified according to a method as claimed in claim 3.

13. Oxide ceramics of which surface is modified according to a method as claimed in claim 4.

10 14. Oxide ceramics of which surface is modified according to a method as claimed in claim 5.

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